

SP-6

**ABSTRACT <sub>1</sub> of the Disclosure**

A method of improving the quality of manufactured modules includes logging manufacturing information to a database and utilizing a knowledge base to determine defects of a manufactured module. A quality ticket is issued for defective modules that is used to log and store defect symptom information in the database. Defects may be determined based on the quality ticket and by utilizing the knowledge base. Repair suggestions may be made and logged to the quality ticket based on the defect determination. Repairs are performed and repair actions logged to the quality ticket. Tests are then performed on the repaired modules. Based on the test results, the knowledge base is updated. In other words, the knowledge base learns over time as more modules, symptoms, defects and actions are tracked. The knowledge base aids during troubleshooting by providing a list of repair actions and frequency of such repair actions that successfully repaired the defect identified in the quality ticket. Alternatively, the knowledge base may provide a list of defects and defect frequency for the symptom identified in the quality ticket. Using these techniques, the quality of a manufactured item may be improved.